

THE BOULDER

PROFESSIONAL 3 WAY ACTIVE STUDIO MONITOR

Owner's manual



RoHS



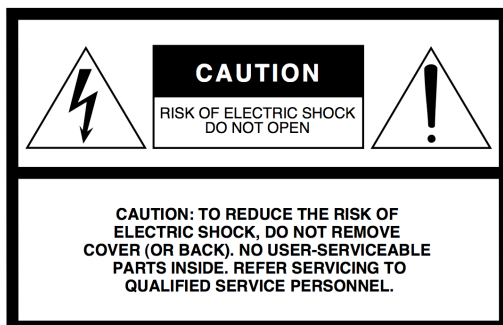
THANK YOU!

Thank you for buying the Unity Audio THE BOULDER, one of the most accurate 3 way active studio monitors available. We wish you many years of productive, trouble-free and pleasurable use from THE BOULDER.

Please read this user manual and keep in a safe place.

Unity Audio

IMPORTANT SAFETY INSTRUCTIONS



1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power- supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

WARNING

Prior to power-up for the first time ensure that the THE BOULDER is set to the correct voltage (see 'Power' p.5)

Prior to power-up during day-to-day operation, ensure that THE BOULDER's gain level control knob is set to minimum (see p.7) and/or that the audio source level from the mixing console, digital audio workstation, etc., is set to zero.

Failure to follow these instructions may result in damage to your hearing and THE BOULDER, and lead to a possible fire risk.

To avoid electric shock remove power cord before replacing fuse.

CAUTION

Humidity

For a superior and consistent sonic performance, considerable care has been taken in the manufacture of THE BOULDER to ensure that the cabinet is acoustically sealed. However, as with any electrical equipment, should you move THE BOULDER from a cold environment into a warm room condensation may form on the components inside. To avoid damaging the product please allow it to reach room temperature before operation.

Unpacking & handling

Care should be taken when removing THE BOULDER from its carton.

The speaker cones (diaphragm and surround) are delicate components. Do not touch at any time.

Listening levels

THE BOULDER is capable of sound pressure levels (SPL's) in excess of 110dB. Avoid listening at sustained high levels, as this may cause:

- permanent hearing damage
- the speaker to overheat, leading to a fire hazard.

Running in

Speaker drivers contain moving parts. It is recognised to be good practice to run in new speakers prior to normal use for improved bass extension, sweeter highs and a smoother performance overall. This process is also referred to as 'breaking in' or 'burning in'.

We recommend a run-in period of at least 12 hours (or overnight); ideally longer.

Having observed the warnings on page 3 of the manual, connect an audio playback device (CD, MP3 player, etc.) to THE BOULDER speaker(s). Place the playback device in loop mode and play dynamic music through THE BOULDERS at a *moderate* level; enough to drive (move) the speaker diaphragm a reasonable amount.

Power

THE BOULDER voltage is factory set. Options are:

- 220-240v
- 110-110v
- 100v

An arrow on the voltage setting label (see p. 6) indicates the voltage setting of THE BOULDER.

IMPORTANT: ensure THE BOULDER is set to the correct voltage for your region. Voltage settings must be set by the factory and cannot be switched by the user. If THE BOULDER is set to the incorrect voltage for your region contact Unity Audio. DO NOT power it up!

Fuse replacement

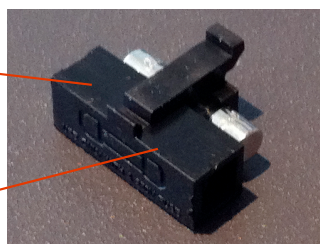
The fuse is located on the rear of THE BOULDER in the fuse holder between the power switch and IEC mains input socket [Image A]. Remove the mains lead. Prise out the fuse holder by placing a small slotted screwdriver into the slot located on the underside and near the front of the fuse holder [Image B]. Carefully but firmly pull the fuse holder outwards. Replace the fuse {see 'Specifications' (p.9) for fuse type}. Push the fuse holder back into position.



[Image A] showing fuse holder location

Fuse holder

Place screwdriver
here



[Image B] showing slot on underside of fuse holder

Cabinet care

Clean the cabinet with a soft, lint-free cloth. The use of solvents or abrasive cleaners should be avoided.

Positioning

THE BOULDER drive unit contains powerful magnets. Please do not position THE BOULDER within 1 metre of a cathode ray tube (CRT) television or display monitor.

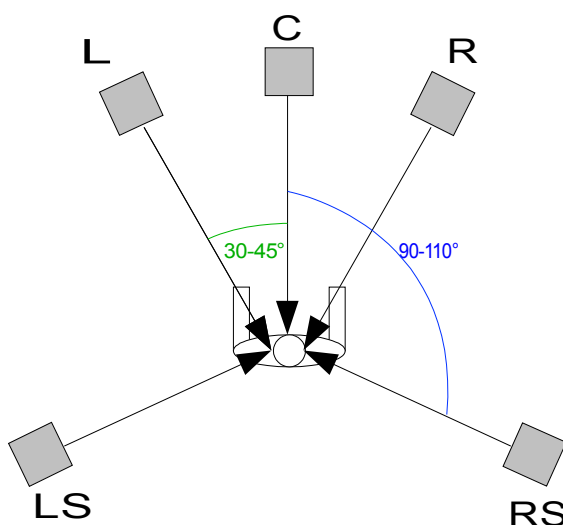
For best results, THE BOULDER should be placed on a sturdy speaker stand such as Unity Audio's [THE MONOLITH](#).

If left untreated, room acoustics (room modes) can seriously affect the accuracy of audio reproduction, especially at lower frequencies. The following guidance is here to help minimise the effects of any untreated room acoustic problems.

THE BOULDER is designed as a near/midfield studio monitor and should therefore be positioned, ideally, between 1 and 3 metres from the listener. The studio monitor(s) should be placed upright and directed toward the listener. A stereo pair of BOULDER monitors should be equidistant from the listener and between 1.5 and 1.8 metres apart, placed upright and directed toward the listener with the coaxial midrange/tweeter at around ear level. Small adjustments to the speaker placement and/or their angle to the listener, and/or the listener's seating position, will help the listener locate the audio 'sweet spot', i.e. a strong central audio 'image'.

Each monitor should also be equidistant from side walls and not too close to any wall or other reflective surface, or the corners of the room. Again, since room modes can influence what you hear in many ways, some experimentation may be needed to find the optimum speaker placement. Nevertheless, measures should be taken to remove any acoustic anomalies caused by the room.

The following diagram is a guide for optimum 5.1 surround speaker placement.



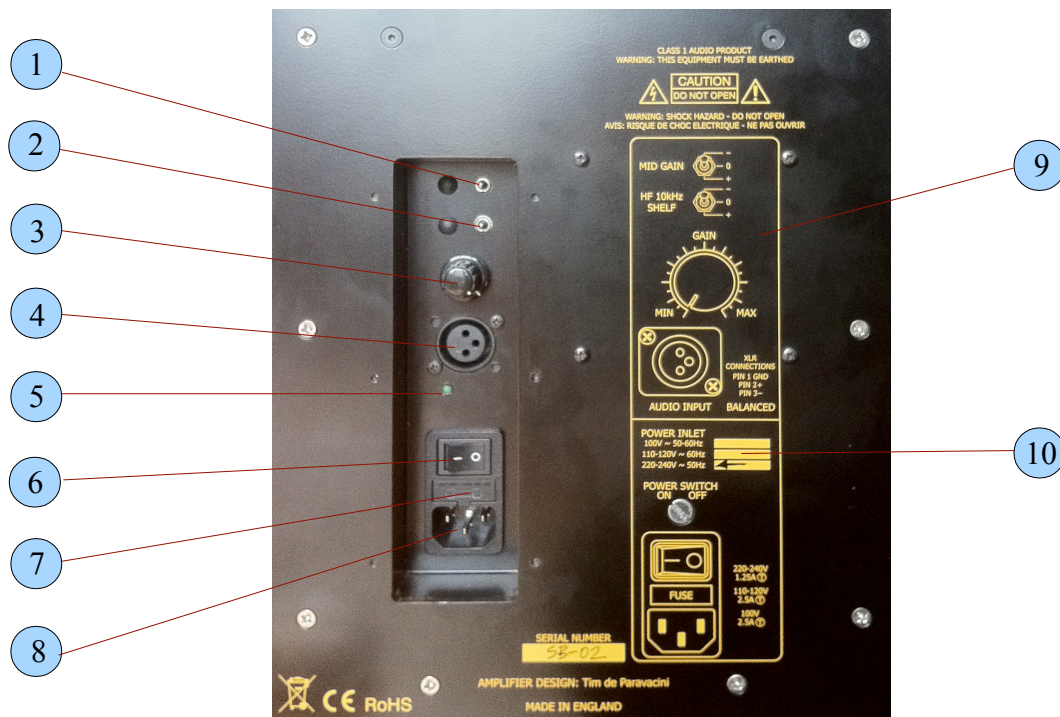
Warranty

This product carries a 1 year warranty.

If you suspect a problem, please contact your dealer, who will advise you on the appropriate action.

Any unauthorised repairs or modifications to this product will nullify the warranty.

Rear panel



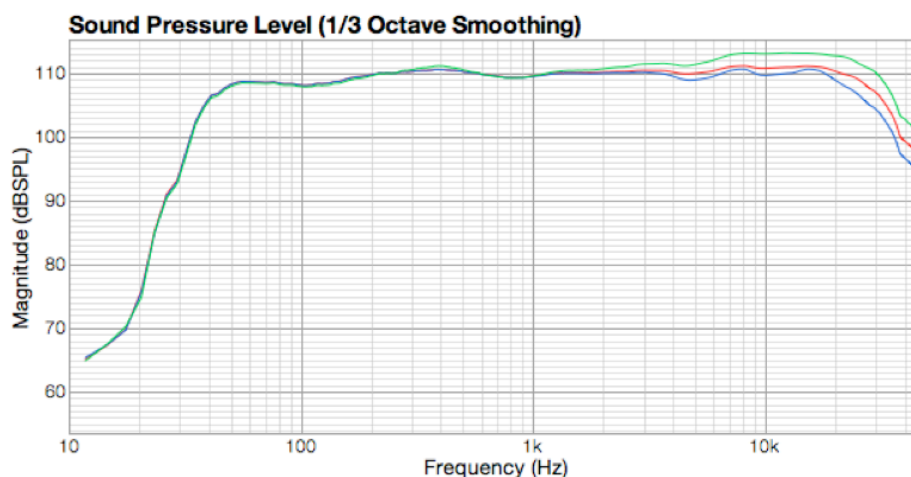
1. **Mid cut/boost switch.** 3-position mid-range frequency (694Hz-3.5kHz) gain switch: up: -2.5dB cut; centre: off; down: +2.5dB boost.
2. **HF 10kHz Shelf switch:** 3-position high frequency shelf switch: up: -2.5dB cut; centre: off; down: +2.5dB boost.
3. **Gain control knob.** This control knob allows adjustment of the input signal at the XLR input. Turning the knob anti-clockwise lowers the volume; turning the knob clockwise increases the volume.
4. **Balanced XLR input:** pin 1: ground, pin 2: hot (+), pin 3 cold (-).
5. **LED power indicator** (on/off).
6. **Power switch** (on/off) – (see Important Safety Instructions, p.3, and Power p.5).
7. **Fuse holder** – (see Important Safety Instructions, p.3, Power and Fuse Replacement, p.5).
8. **IEC mains input socket** – (see Important Safety Instructions, p.3, and Power, p.5).
9. **Rear panel guide** – this panel provides important information about control and connectivity of THE BOULDER.
10. **Voltage setting label.** An arrow on this label points towards the voltage setting of THE BOULDER. The voltage is factory set (see Important Safety Instructions, p.3, and Power, p.5).

Response curves

Frequency Response: ± 3 dB 39Hz–30kHz;

Frequency response and HF Boost & Cut Response.

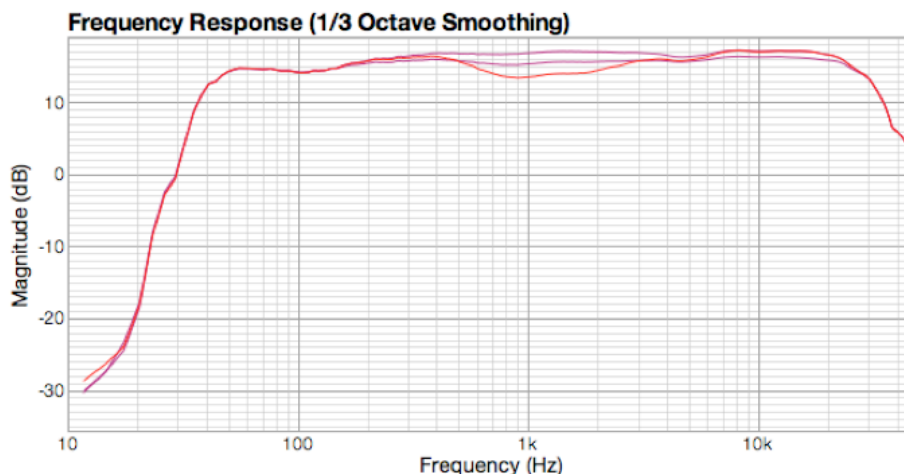
The central red line shows THE BOULDER's response when the monitor is flat, i.e. no boost or cut. The green line shows the response when the HF is boosted and the blue line shows the response when the HF is cut.



Green curve: +2.5dB (boost); Red: 0dB (flat); Blue: -2.5dB (cut)

Frequency response and MF Boost & Cut Response.

The central purple line shows THE BOULDER's response when the monitor is flat, i.e. no boost or cut. The upper purple line shows the response when the MF is boosted and the red line shows the response when the MF is cut.



Upper purple curve: +2.5dB (boost); Central purple: 0dB (flat); Red: -2.5dB (cut)

Specifications

General specifications

Type 3-way active monitor with coaxial midrange tweeter
Crossover Frequencies 694Hz; 3.5kHz
Frequency Response +/- 3dB 39Hz–30kHz
Maximum Output Level 113 dB (1m on-axis)
Mid Cut/Boost +/- 2.5dB
HF EQ Shelf @ 10kHz +/- 2.5dB

Enclosure

Closed cabinet design
30mm Corian front baffle
18mm grey Baltic birch 9-ply cabinet

Speaker unit

LF: 2 x 7"/180mm woofer (4Ω)
MF/HF: Coaxial 5" midrange and 50kHz folded ribbon tweeter (4Ω)

Amplifier unit

4 x bespoke true class A/B 100 watt Esoteric Audio Research discrete amplifiers, one per driver
Total Output Power 200W
Input Sensitivity/Impedance +4 dB/20 kΩ (Balanced XLR)
Level control

Power

Power Indicator LED
Power Requirement:
Europe 220-240v AC, 50 Hz
USA & Canada 110-120v AC, 60 Hz
Japan 100v AC, 50/60 Hz
Other..... 220-240v AC, 50 Hz
Fuse 1.25A (230v) ; 2.5A (110v); 2.5A (100v). 20mm type

Option

Unity Audio THE MONOLITH speaker stand

Dimensions

23kg each
368mm deep x 256 mm wide x 549mm high

Specifications and appearance are subject to change without notice. © Unity Audio Limited

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